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AMONG THE PREHISTORIC MONUMENTS OF
BRITTANY.¹

BY ALPHEUS S. PACKARD.

NOT far from the Land's End of France, and adjoining the picturesque coast of Finisterre, a favorite resort not only of French, but also of English and American artists, lie the barren and almost treeless plains of Morbihan, one of the eighty-six departments into which the French Republic is now divided. Morbihan is Celtic for "The Little Sea," and the district is famous not for its scenery, for the landscape is very tame, but for its impressive and mysterious so-called Celtic or Druidical ruins. These remains are mounds, tombs, and monoliths erected by a race whose remote descendants still occupy the soil, their farms and dwellings and hamlets bordering upon, and in part inclosing, the tombs and lines of stone pillars which keep silent watch over the region. The most imposing and best known of these series of pillars or "menhirs" are the great "alignments" of Carnac, which have for centuries excited the curiosity and interest of travelers and antiquarians.

Such monuments, if they ever existed in so great perfection in other parts of France, have been removed by farmers in clearing their lands, or in building their own dwellings, as with us glacial boulders have been removed and used for building stone walls. On the remote coast of Morbihan, however, where the land is comparatively sterile and treeless, and the population is sparse, not only have the monuments been tolerably well preserved, but the Bretons themselves, perhaps speaking a language derived from their pre-Celtic ancestors of the later stone and early bronze age, have preserved in a degree the probable features, the folklore, and some of the customs of the times when these monuments were erected.

Hence a journey to Morbihan, with its weird, somber landscape, its cider-drinking, superstitious, Celt-speaking peasants,

¹ From the *New York Independent*.

clad in their sober black garments, environed by the many mounds, tombs and standing stones, rising as silent witnesses of the mysterious past, and becoming an integral part of the everyday life of the inhabitants,—a journey among such scenes has a strange fascination.

From Paris to Carnac seemed like a journey to Ultima Thule. Ordinary maps in guide-books, and the books themselves, threw little light on this obscure corner of France. Had it not been for valuable information kindly afforded us by Prof. Gabriel de Mortillet, the distinguished founder of the prehistoric section of the vast Museum of National Antiquities at St. Germain-en Laye, who drew a rough map of the Carnac region, together with information given us by Dr. Topinard, the learned successor to the chair of anthropology formerly held by Paul Broca, who freely gave us his personal cards for use among the local antiquarians of Morbihan, we should have lost much time in seeking the most interesting places to visit. We were also indebted for useful suggestions to Mr. Thomas Wilson, who spent part of a previous summer in and about Carnac, and has, in company with M. Gaillard, the chief antiquarian of Morbihan, explored a number of dolmens, and whose article in the *AMERICAN NATURALIST* for July, 1888, was of much aid. Acting on such good and reliable advice, I made M. Gaillard's hotel at Plouharnel my headquarters, and from there made excursions to Lockmariaquer, to Carnac, to Erdeven, and to the Peninsula of Quiberon, thus seeing all the alignments and many of the typical tumuli and dolmens of Morbihan.

A journey in any direction from Paris through Brittany to the Atlantic coast is a delightful one. It was the middle of August, delightfully cool, often misty, to be sure, but with no pouring rain, and often a bright sun,—ideal weather for walking and driving in village carts. Leaving the Mount Parnasse station at eleven in the forenoon, the train shot by Versailles, with its palace, gardens, and surrounding forests, and after taking us through Chartres and Le Mans, left us early in the evening at Rennes, where we slept. Early the next morning we visited the museum of the university, and though it was closed,—it being a

fête day,—the keeper politely gave us a short hour of his time to enable us to see the pre-Celtic and other prehistoric remains of stone, bronze, and iron. Here are amassed the rich vertebrate remains, including the bones of the mammoth from Mont Dol, Brittany, associated with human flint implements, many polished stone axes taken from dolmens; but of especial value are the fine Gallo-Roman remains and the many relics of the Merovingian age excavated from the Necropolis of Caranda. Among the many fine objects in the geological museum of interest to the anthropologist is an immense mass of jade from New Caledonia, perhaps a foot square. Merely glancing at the valuable zoological and art collections gracing the halls of a lyceum in a French provincial city of 60,000 inhabitants, and heaving a sigh at the utter lack of local museums and art collections in far wealthier provincial cities in the United States, we hurried to the station and took the train for Vannes. The afternoon was spent at this strikingly picturesque town, with its ancient timbered houses, leaning over toward each other across the narrow streets in such a social mood; with its mediæval walls and towers, its three notable gateways, its Norman cathedral, and lovely park and flower gardens. It was the *fête* day of the Virgin, and a procession of men and boys, with women and girls in their white-starched caps, such as perhaps only gather in unique Brittany, filled the square and moved slowly down the incline, closing its ranks as it approached the most ancient of the city gates, the Porte Prison, situated between two machicolated towers rising from the town walls.

One should visit the excellent museum here before passing on to Carnac. The Musée Archéologique is situated in the third story of a very old, rambling, timbered building, with creaking oak stairs and ghostly corridors. The rooms are small, but the cases contains very rich collections taken from the dolmens and tumuli we were afterward to visit. Here were placed together in the case the relics excavated in 1862 from Mont St. Michel, at Carnac, the largest burial mound in France. It comprises superb series of polished axes in jadeite, chloromelanite, fibrolite, and diorite, with a beautiful necklace of green turquoise. There was

also a fine series from the tumulus of Mané-er-H'roëk at Lockmariaquer, comprising besides six jadeite axes ninety-two of fibrolite, which is a dark variety of serpentine. The pottery of the mound was represented, and among them were seen the rude, unfinished earthenware, precursors of our bowls, tumblers, and cups and saucers. Some of the "green turquoise" heads were cylindrical, perforated, and exactly resembled in shape and color a jade bead we had obtained at Cholula, from a Mexican Indian. The jadeite implements were illustrated by unworked specimens of jade from Thibet, and of jade nephite from Siberia, as well as saussurite from the valley of the Saas.

Reluctantly leaving this quaint and attractive town, we took the evening train for Plouharnel Carnac, reaching the Hotel du Commerce, kept by the two daughters of M. Félix Gaillard, to whom we took a card of introduction from Professor Topinard, and from whom we received every kind of attention and aid, the learned archeologist freely giving us the benefit of his many years' exploration of neolithic menhirs and dolmens, as well as Gaulish burial-places. Part of the hotel is devoted to a very rich local museum, crowded with stone implements, ornaments, and articles in bronze and gold, pottery, including funeral lamps with holes for the wick, and three graves removed with their contents from Quiberon, the whole illustrated by stone implements from North America and New Caledonia, with objects from the Swiss palafitts, or pile dwellings, which M. Gaillard told us are of the same age as the dolmens of France.

And now, before we actually visit these strange memorials of past neolithic occupation, let us explain the meaning of the Celtic names applied to them. The megalithic monuments are rude monoliths of the granite of the Breton coast, called *menhirs*, from two Breton or Celtic words, *men*, a stone, and *hir*, long; they are also called *peulvans*. The menhirs are arranged in groups of from nine to thirteen rows, each row being called an alignment.

The tomb-like structures called dolmens are so named from *men*, a stone, and *dol*, table. They consist of a few large, broad, flat stones set up on edge so as to inclose a more or less oblong space; the larger ones are about six feet high, and covered over

by a single great slab (called table) or several flat stones. The smaller ones are said to resemble tables and altars. Many of those in the Morbihan are approached by covered galleries, which are generally straight, but at times curved; the main structure or chamber is sometimes wider than long. They, in nearly each case, face the east, and were places of sepulture or tombs, being the precursors of the old-fashioned tombs of our cemeteries, and were covered by mounds of earth called *tumuli*. A tumulus sometimes enclosed a cairn or *gilgal*, or heap of squarish stones, six or eight inches or a foot in diameter, thrown or laid over the dolmen to protect it from wild beasts. A *cromlech* in France is a circle or semicircle of menhirs or upright stones. The stones composing a cromlech are usually smaller than the majority of the menhirs, and the stones touch each other, while in an alignment of menhirs the individual stones are from two to several feet apart. The word cromlech is from *kroumm*, curved, and *lec'h*, meaning sacred, or, according to some writers, smaller stones.

There are in the single department of Morbihan 306 dolmens, and throughout France 3,410. They are rarer in the north and east than in central, southern, and western France. Beginning with the most eastern point at which dolmens occur, archeologists have observed them in western India, where they have been used to the present. They are found in Palestine, near the Dead Sea, in the land of the Moabites. Going west, we find them on the other side of the Caucasus Mountains, in Circassia and the Crimea. Passing farther to the westward, they occur in Central Europe, northeast of Dresden, from Mecklenburg through Denmark into southern Sweden, but none occur in Norway. Returning to Germany, many have been discovered in Hanover and the Low Country, as well as in Belgium, in Luxembourg, and Switzerland. They also occur on the Channel Islands, in Cornwall, in the Isle of Man and of Anglesea, some in western and a few in the eastern counties of England, while many occur in Scotland and in Ireland. Turning to the Mediterranean region, there are the ruins of dolmens in Corsica, in northern Spain, in Andalusia, in Portugal, while in northern Africa they are abundant from Morocco to Tripoli, especially in Algeria. Mortillet rejects the

theory once held that the dolmens were constructed by a migratory people, maintaining that they were the work of a sedentary population, and not of one and the same race, as skeletons of very different races have been found in them. At the same time many facts tend to show that the dolmen-builders in the first place came from the east. Mortillet also states that dolmens were burial chambers used as places of sepulture by families or by tribes. The menhirs were also quarried and erected by the designers and builders of the dolmens, who roughly hewed and chipped the monoliths into their present shapes with small axes of polished flint, jade, and the harder varieties of serpentine.

Before we inquire into the traits and customs of the Neolithic tribes, let us glance at the monuments they left behind them.

After breakfast we clambered into a Breton village cart, driven by a youthful latter-day Celt, with M. Gaillard as our courteous guide, and set out over an excellent road, often bordered with the broom and hedged with gorse, past farms and scattered dwellings of stone, through the village of Carnac, with distant views of the Atlantic, dotted with the brown sails of the sardine fishing boats, and on our left overlooked by the tumulus of San Michel, the highest elevation in the neighborhood. The road soon passes over a causeway bordered with salt vats; and after an hour's drive we cross the ferry a little above the fishing village of La Trinité. The ferry, by the way, was an interesting study. Although the amount of travel on this road would hardly seem to warrant it, the road on each side of the arm of the sea was elaborately paved with granite blocks to a point below low-water mark. The boat was a big scow, large enough to hold two carriages, and was slowly, laboriously pulled across by means of a large iron chain.

At the village of Lockmariaquer, which was the site of Dariorigum, or of some other Roman settlement, we walk out to the end of the solid granite jetty, whose earliest foundations are attributed to the celts, the Romans afterwards improving upon them. We engage two fishermen to take us in their boats to Gaverne or Gavr'Inis, *anglice* Goat Island, on which is perhaps the most interesting tumulus and best-preserved sculptured dolmen

in the Morbihan, and probably in Europe. With a fair westerly wind and a bright sky we hie on, taking the opportunity to eat our lunch of cold meat, bread, and cider, with a course of excellent, though tiny, raw oysters, which are usually offered at the hotels throughout the coast towns of Brittany. Clambering ashore over the slippery rocks we walk up a lane bordered with fig trees, and ascend the eastern side of the mound, which is a *galgal*, or cairn, twenty-six feet high, and covered with soil overgrown with the broom and prickly gorse.

The view from the summit of the mound, over the Gulf of Morbihan and its shores, is one of much interest, from the fact that some of the distant eminences are artificial mounds, and that on some of the islands there are dolmens. We can look across a narrow passage swept by swift tidal currents to the little ragged island of Er-Lanec, with the remnants of one cromlech, half of the circle on the shore and the other half below high-water mark, while beyond, at low water, can be seen the prostrate stones which once formed a second cromlech. The land has fallen, and the sea has partly torn down this and all the other islands since the times when the dolmen builders inhabited this region.

Descending, we enter the gallery of the dolmen by a path walled in with the square porphyritic granite blocks taken from the sides of the *galgal*, and, passing through the low, narrow gallery about twenty-five feet long (Cartailhac says thirteen meters) we enter the chamber, which runs east and west. About forty huge slabs form the pavement, the walls, and the ceiling. One of the slabs in the ceiling is of quartz; and we judged the largest slab to be about eighteen feet square. But the distinguishing feature of this dolmen is the mysterious sculpturing on the slabs. All the granite wall-slabs are thus sculptured, the marks being cut in. And what was the nature of the tools? The quartz slabs alone had been untouched. Cartailhac argues, with good reason, we think, that the implements could not have been of iron, as only the softer granite was grooved and engraved, and that the engravings were made with stone tools. It is also noticeable that in other dolmens we visited, symbolic stone axes, mounted on handles, are engraved on the slabs of the ceiling, while on a

single upright slab in the dolmen we are now describing there are eighteen such axes figured, with others in the same gallery.

The marks themselves roughly resemble the tattoo marks of Pacific Islanders. As Cartailhac remarks in his "*La France Préhistorique*" (1889), they are diverse linear combinations, being straight, curved, waved lines, either isolated or parallel or ramified like fern leaves, or arranged in segments of concentric circles, either limited or not, and trimming certain compartments of spirals with short turns, recalling exactly the figures made by the wrinkles of the skin on the palms of the hands and the finger-tips.

The last-described marks are certainly the most typical and abundant, and perhaps were suggested to the proto-Celtic engraver by studying the lines on his hands. The artist was not hurried in his work, and, as Cartailhac says, the sculptures must have been made before the stones were put in place.

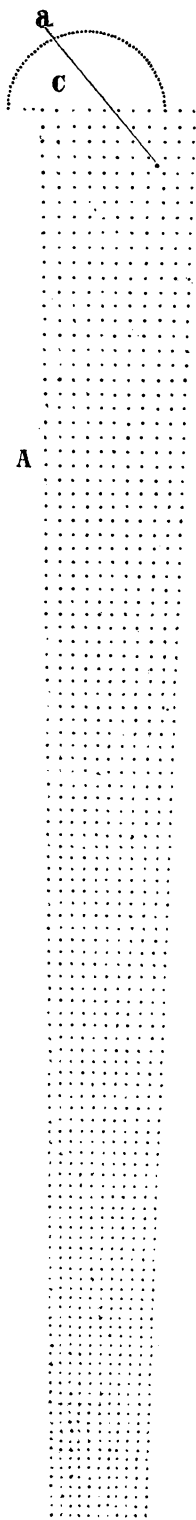
But the tide is going out, and we must unwillingly leave this fascinating ruin and return to Lockmariaquer, to visit other dolmens. One of the most notable, situated south of the town near the base of an elliptical mound, thirty-nine feet high, is the dolmen Mané-er-H'roeck (the mountain of the fairy). The opening to the gallery, as in all the other dolmens, faces to the east; and to enter it we pass by two enormous but prostrate menhirs, one thirty-one and the other twenty-five feet long. The walls of the dolmen are built in horizontal layers, and one of the stones raised on the right side of the entrance is ornamented with very beautiful and curious sculptures, some like escutcheons, besides ten figures of symbolic axes with handles. Thence walking across a potato field, occasionally stopping to pick up fragments of Roman tiles, we approach the "king of the menhirs," called Mane-ar-Groac'h. His monolithic majesty is second in size and height to none in Europe, or any other country; the next largest one in Brittany being thirty-seven feet high. It lay however, prostrate, and broken into four pieces. When entire it was sixty-seven feet six inches long, seven feet six inches thick in one diameter, and thirteen feet six inches in the broadest portion. This colossal menhir, as usual when one or two stand

alone, served as a monument, and was evidently in direct relation to the tumulus and the inclosed dolmen, for we noticed one standing sentinel over a dolmen ; and they are sometimes erected on the summit of a tumulus, as at Ile de Sein ; in such case they may have been put up to indicate burials. The dolmen near the base of the Mane-ar-Groac'h is a famous one, and, like many of the others, has been purchased and restored by the government. It is the Dol-ar-Marc'hadourien, or Table of the Merchants. On the under or inner side of the great table or covering slab, which is twenty feet long by thirteen feet wide, was engraved a large stone symbolic hatchet with its handle. That these images are in reality rude representations of hatchets seems plausible. Stone axes, apparently made expressly for ceremonial use, are found in nearly all dolmens, having been placed there by the side of the dead ; and they are in nearly all cases beautifully finished, with sharp, unbroken edges, and often of jade, which is only now to be found in Asia and Polynesia, being one of the rarest minerals in Europe. Some authors suppose that the axe was regarded by the people as the symbol of separation, an emblem of the end of life. However this may be, whether from its utility alone in every-day life, or its use as a weapon of war, it must have been a highly prized and venerated instrument, to be so often engraved on tombs, and so invariably buried with the dead.

This region is especially rich in dolmens, as they are scattered all about Lockmariaquer ; the dolmen of Mane Lud being situated on one of the principal streets, next to a house, the tumulus once inclosing it rising behind.

A little way out from the town is the dolmen of Kervress, remarkable for the cup-shaped pits in the under side of the covering slab, and which, of course, must have been made before the stone was put in place. These cup-shaped hollows are scattered irregularly over the surface, varying somewhat in size, the largest being about an inch and a half in diameter. They are a great puzzle to archeologists, who can make nothing of them. Occurring in Germany, Switzerland, among the Alps and the Pyrenees, and in Portugal, both in dolmens and on menhirs, they had some meaning to the men of the stone and of the bronze

PLATE XIX.



ALIGNMENT OF MENEC.

age, after which they ceased to be formed. It is only to be said, with Cartailhac, that at the present day Hindu women at the approach of maternity may be seen carrying water from the Ganges, with which they sprinkle these symbolic cups in their temples with prayers to the divinity indwelling.

Such superstitions still prevail, unless they are of new and independent growth, in France, and in the Pyrenees, in Sweden, as well as in Switzerland, where they are either regarded as the work of elves, or visited by young girls and widows in the hope of getting husbands. The great mound of St. Michel looms up as on our return we approach the little village of Carnac. It is the largest tumulus in France, overlooking the rather flat surrounding country and the Atlantic, with Belle Isle in the distance and to the right the peninsula of Quiberon. The tumulus is now 65 feet above the surrounding fields, though originally it must have been considerably higher, its summit having been leveled by the Romans, who built a temple upon it, while the remains of a Gallo-Roman villa are still visible near its base. In place of the Roman temple stands a humble and not at all interesting chapel, dedicated to St. Michael. We ascend the tumulus by the fifty-two steps made of the small granite blocks taken from the galgal which protected the dolmen, the great elliptical mound of earth covering both dolmen and cairn, being 400 by 200 feet in its greater and lesser diameters. Toward the north and northwest are plainly to be seen the famous alignments of Kerlescan, Kermario, and Ménéac, which we were to visit on the morrow, when M. Gaillard was again our guide, philosopher, and friend. Without his intimate knowledge of these striking monuments we should not have half seen or understood them, and the kindly man, full of enthusiasm and enlightened interest, told us all he knew of the alignments and their probable object. His conclusions seem to us to be in advance of what has been published by the leading French archeologists, who have only made comparatively brief visits to the region. Fortunately the government has for a number of years taken possession of the alignments and most of the dolmens, restoring them by setting the buried or fallen

stones into their original places, so that we saw them under more favorable auspices than earlier travelers.

With our old white Breton horse and ricketty cart, and youthful Breton presiding over the reins, we again drove through Carnac, past Mont Saint Michel, and turning sharply north at the salt vats, drove through a delightful lane shaded by chestnuts and oaks, with walls of turf overgrown by the gorse, leading to an old chateau, buried from sight by a thick wood. It was just the day for exploring alignments. The same blessed sun which for so many ages had shown upon these same stones while being planted by throngs of Neolithic workmen, perhaps under the inspiration of their priestly leaders,—the same sun shone brightly under the menhirs rising from the gay purple heather which clothed the undulating plain. M. Gaillard had wisely conducted us to the easternmost point, and was now to lead us for three or four miles westward, so that we could review, one after the other, beginning with the thirteen alignments of Kerlescan, and ending with those of Ménéac.

There are at Kerlescan thirteen rows or alignments, comprising 262 menhirs, and extending westward about 1,000 feet. At the western end is a cromlech now restored, which, instead of being semi-circular, is somewhat square, inclosing a space about three hundred feet in diameter. We then visited the interesting elliptical mound inclosing the dolmen of Kerlescan, lying just north of the middle of the group of menhirs, which is exceptional and indeed unique in Brittany from having been surrounded by an elliptical cromlech or circle of menhirs, some of which were six or seven feet high, and placed a few feet apart, not touching each other as in those of the alignment. Then retracing our steps, picking our way back through masses of the prickly, forbidding gorse, which bore an occasional yellow pea-like flower, we examined the cromlech, and, taking to our cart, drove on to the next series of alignments, the larger one of Kermario.

The avenues of Kermario consist of 855 menhirs planted in ten rows, extending over the undulating heath for nearly a mile, or, to be exact, 4,037 feet. The standing stones are impressive for their size and height, some of them being twelve feet high.

Moreover, an added interest are the traces of Roman occupation on the south side near the western end,—in fact, traces of the civilization of Rome of the period of the Gallic wars are scattered over Morbihan; and the peasants call the alignments Cæsar's Camp. Indeed their explanation of these lines is that their patron Saint Corneille was pursued by the Roman army, which was, as a punishment, turned to stone, the taller pillars representing the officers.

After crossing another interval we reach the eastern end of the alignment of Ménec, whose cromlech, at its western end, incloses some of the farmhouses of the hamlet of Ménec, which is not far from Carnac. The menhirs lie to the north of the road between Carnac and Plouharnel. The group is a little shorter than that of Kermario, being 3,376 feet long, and consists of eleven instead of ten lines, and the stones are not quite so high and imposing as those of the middle group. The stones or pillars vary much in shape; some are much rounded; many were, however, planted with the smaller end down; and whether it is a mere coincidence or not the highest stone is about eleven feet high, the number of rows is eleven, the alignments themselves are about eleven yards apart, while the spaces between the stones composing each line are often ten or eleven feet apart. In this, as in the other groups of alignments, the rows are not mathematically straight, but more or less wavy, and the stones vary much in distance apart, all the way from perhaps three or four to ten or eleven feet. In general the stones decrease in height toward the end, where they are not much over four or five feet high. The groups follow the natural inequalities of the plain, whose surface is rolling, the country slightly descending from Ménec to Kerlescan.

The semi-circle of stone or cromlech at the western end of the Ménec group was inclosed by standing stones from about five to six and even eight feet high, which touched each other. At present many are prostrate, and there are two or three small stone farmhouses within the circle. Fortunately the government purchased the entire group in 1888, and will raise and plant the fallen stones; and as the inhabitants of the houses die or remove, the buildings will be taken down. The restoration of the Kermario

group is nearly accomplished, and is almost entirely inclosed by a low stone wall.

It was hard to leave this weird, fascinating, and impressive landscape, in which the natural features were tame enough, the strange interest being due entirely to the work of the heads and hands of a forgotten and extinct people, who have passed away leaving not a tradition behind them,—only these imposing monuments of stone.

“ No priestly stern procession now
Streams through their row of pillars old ;
No victims bleed, no Druids bow,—
Sheep make the daisied isles their fold.”

Returning to our hotel to breakfast, we spent the afternoon in exploring the dolmens and alignments of the Quiberon peninsula, accompanied by M. Gaillard, who was so enthusiastic and interested in having us see everything of archeological interest.

The carriage road to St. Pierre, which is a little village situated on the new railway running to Quiberon, passes over a dreary, monotonous waste of sand, and as it runs along the middle of the neck of land reveals few extended views of the ocean. On our way we pass on the western shore, not far from the site of a Gaulish burial-place, from which M. Gaillard had recently exhumed seven skeletons, with bronze bracelets and Gaulish coins and pottery. After visiting the dolmens and tumuli of Port Blanc, on the west shore near St. Pierre, gathering pieces of pottery, bones, and flint chips, and seeing how the ocean has encroached on the slowly subsiding coast, so as to undermine the cliff and the tumulus, which must have been situated much farther inland in pre-Celtic times, we walked over the grassy, sandy wastes back to our cart, and drove past the village of Saint Pierre and its old windmill to the menhirs and cromlech on the shore. How long the rows of standing stones were originally, it is difficult to say, because the coast has sunken and the waves have undermined and overturned the stones at the eastern end. Walking down across the field, where the men, and women, too, were digging potatoes, we stood on the edge of the *falaise*, or sandy cliff, and the tide

being partly out, we could trace some of the lines into the sea. A few of the stones were lying prostrate on the beach, while others beyond were overgrown with sea-weed, and still beyond lay some under the waves. There are in all five lines, which extend in a southeasterly direction for 635 feet seaward. At a distance of about ninety yards from the head stones of the rows, the highest menhirs being about eleven feet, is situated the ruined cromlech which, according to Lukis, was two hundred feet in diameter. We did not attempt to measure it. The group has not yet been restored, and only about a dozen of the stones are still upright.

M. Gaillard had brought his compass with him, and now demonstrated a curious fact to us. He had already called our attention, while visiting the alignments of Kermario and of Ménéac, to the occurrence between certain of the rows of a single menhir, standing by itself, and which has been overlooked, he said, by all other archeologists. In the alignments of Kerdescan this mysterious odd stone is situated, we think, between the seventh or eighth space between the rows. It is about eleven feet high, and from nine to ten feet thick at its greatest diameter, which is not far from the top, the stone being smaller at its base. In the alignments of Ménéac the single menhir is in the third space from the northern side; namely, between the third and fourth rows of planted stones. In each group of alignments, at least in four of them, this odd menhir occurs, though varying in situation, depending apparently on the position of the rows, none of which are exactly in an east and west course, as their builders had no compass. They are all situated not many paces—perhaps fifty, more or less—from the cromlech.

Now our friend and guide took the greatest interest and satisfaction in placing his compass on one of the middle stones of the cromlech at St. Pierre, and demonstrating to us that the line of 50° (it varies from 45° to 50° in different groups of alignments) intersects the single menhir. M. Gaillard has been here, as well as at the other alignments, at sunrise on the morning of the longest day in the year, the 21st of June, has placed his compass on this menhir, and at the moment the sun appeared above the horizon the odd or single unaligned menhir was seen to be in line with

the median stone of the cromlech and with the sun. It is therefore inferred, and very naturally, that the designers and builders planted these stones in accordance with a fixed plan, and that the inclosure must have been the scene of some ceremony at the time of the summer solstice. And this confirms the idea insisted on by archeologists, among them MM. Cartailhac and Gaillard, that the groups of standing pillars were planted after a common design and nearly at the same epoch, and that the people who erected them were possibly worshipers of the sun, having brought with them from the far east, their original home, the cult so characteristic of eastern races. On the morning of our last day spent in the Morbihan—and what soul-stirring and awe-inspiring days they were, with the charm of the fresh Atlantic breezes, and the bright sun lighting up the heaths and plains, the quaint costumes and dialect of the peasants lending an unusual human interest to the scene—we drove to the dolmens and alignments of Erdevén, through a region of lilliputian farms. The property of the country people is chiefly in land, and the farms handed down from one generation to another becoming gradually halved and quartered, though many were triangular or polygonal in shape, until some of them seem scarcely large enough to support a sheep or cow, or to afford room enough for even a small potato patch. Moreover, they are hedged in by high turf walls overgrown with gorse, one of the most forbidding of prickly plants. Some of the farms were inclosed in turf fences, perhaps four or five feet high, with the corners elaborately built of stone.

The largest of the dolmens in Brittany is that of Crucuno, called *La Roche aux Fées*, or the Stone of the Fairies. A farmer had built his house next to it, and the dolmen, by no means of fairy-like proportions, was used as a cow-house until its purchase and restoration by the government. It is twenty-four feet long by twelve wide, and one can stand upright in it. From this impressive dolmen a path, which a boy will point out for a slight cupreous gratification, leads across the fields to the very remarkable dolmen of Mané-Groh, which is galleried, and besides the principal chamber, has four lateral inclosures.

We shall now dismiss the dolmens, which are so numerous and interesting. They are regarded as the tombs or burial-places, possibly in some cases ossuaries, of tribal chiefs and their families. They were opened at intervals, perhaps for the interment of the successors of the warriors for whom they were first built. Many of them have a circular hole in the stone door a little over a foot in diameter, too small for the passage of a body, and probably used for the deposit of food for the service of the departed in his wanderings in the other world. It is not improbable that our pre-Celtic, neolithic ancestors brought with them from their eastern homes the observance of burial rites, and very primitive religious ideas, involving some notion of a future life, besides the worship of their ancestors and of the sun.

On the whole the Erdeven group of alignments is more impressive than the others, on account of the greater length of the rows, the larger, higher stones, and their greater number, 1,120 having been counted by M. Gaillard. They extend over the rolling plains a distance of more than two kilometers, or over a mile,—viz., 6,886 feet. One of the standing stones near the western end is nineteen-and-a-half feet in height, and two others a little over twenty feet high; one of the prostrate stones is called “the sacrificial stone,” but the furrows in the surface seem due rather to weathering than to artificial means.

Could one stand at or near the head, and overlook the entire group of alignments, the impression made would be of course more striking than at present, since many of the stones have fallen, and the lines are much broken, while they make a turn to the southeast near their middle. But as they stand, the longer the observer lingers among them the more impressive they become; and not to see the alignments of Carnac and of Erdeven is to miss one of the wonders of the world. They rank in importance and interest with the ruins of Central America and of Mexico, and the so-called Pelasgic walls and burial-mounds of Greece, while they are by far the most imposing relics of prehistoric times.

Rows of standing stones are not, however, confined to the Morbihan; the menhir-erecting and dolmen-building race, judging

by the monuments it has left behind, existed in other parts of France and of the Old World. According to the latest and most trustworthy authority, M. Cartailhac, whose work entitled "*La France Préhistorique*" appeared in 1889, there are in Morbihan eight of these groups of alignments, including the cromlechs connected with them, and nine, far less important, in Finisterre, five in the department of Ille-et-Vilaine, and six or seven others, of small size and slight importance, in the rest of France, most of them only forming one or two short rows of standing stones. Mortillet says there are in France fifty-six alignments, in fifteen departments. Analogous to the alignments in France are the Sarsden Stones in Berkshire, England, which are composed of 800 menhirs.

Solitary standing stones or monoliths of a later age occur in the Pyrenees, in Corsica, and in Northern Africa, and at present the natives of Madagascar and the Khasias of Northwestern India raise stone columns around their tombs; but these are analogous to the solitary menhirs planted near the dolmens, or those composing the cromlechs, surrounding dolmens, or tumuli. Whether of original prehistoric growth or a later development, the solitary menhirs are in Thibet and in other lands venerated as symbols of the reproductive powers of nature. Finally, we have the solitary obelisks of Egypt, and the monumental stones of mediæval times, which have survived to our day in the granite shafts and marble columns memorializing great national events, or sacred to the memory of the departed.

The alignments were not made spasmodically, at irregular intervals, one stone after another being set up during a long period, as in a modern cemetery, but they were evidently built at one period after a fixed design or pattern, to which all conform. Those of Morbihan and of Finisterre were undoubtedly planted at the same time by the same people,—a race animated by other ideas than those of living merely an animal existence. It is not probable that they were memorials of some conquest or other event of great importance. It seems natural to conclude that these vast and imposing relics, whether we consider the size of the stones themselves, their enormous number, their repetition

over a not very extensive region, and their similarity of plan and contemporaneity with the dolmens, were the outcome or tangible expression of the religious nature of the pre-Celtic mind. The people had, long before starting on their westward migration, emerged from savagery, and after centuries of physical and intellectual effort, having peopled Europe, now strong in numbers, and dominated by lofty conceptions and wonderful zeal and industry, had met together, and working, as if impelled by a common inspiration and impulse, under the direction of their priests, raised these unique monuments. The population must have been dense; it was not now migratory, but an agricultural as well as pastoral people. The materials for the dolmens and menhirs were not far off. No traces of quarries have survived, because the Atlantic, in conjunction with the plutonic forces at work in the earth's crust, has lowered the coast, and washed away all traces of these mighty workers in stone. As we noticed in the materials of some of the dolmens and menhirs, the rock is a porphyritic granite, with oblong crystals of feldspar and scales of black mica, readily rusting on exposure to the air. On the cliffs at the ferry, on the way to Lockmariaquer, we noticed the rock in place. It readily and naturally breaks by the action of frost into square or oblong blocks, fitted either for monoliths, or for the small, squarish blocks with which the galgals were formed.

More industrious and inventive than savages, they made use of their oxen, and, whole families or tribes coöperating, the busy multitudes, swarming like bees, with the use of stone axes and chisels, and the aid of fire, quarried the big slabs for the dolmens, and the monoliths for the alignments. They probably moved them on rollers a few hundred yards, or even one or several miles, inland, and then, with a skill developed by long experience, and probably after many a bitter failure, set the stones in place. Some of the menhirs stood on the surface, without any foundation; in other cases foundations for them were carefully laid. So long have they stood that all marks of quarrying have been effaced by the agency of the atmosphere. As Wilson states, a menhir in the headline of the Erdeven alignment, which had been overturned and used as a fireplace, though with tool-marks on it, and buried

during Roman occupation, must have remained prostrate from fifteen hundred to nineteen hundred years; "yet it had previously stood on end long enough a time for the top to become so weathered as to be plainly distinguishable from the bottom."

What, then, was the use of these remarkable monuments? No burials took place among them. The chiefs and their families were deposited at death in the dolmens. The question is still an open one, the best archeologists differing as to whether they were monuments to the dead, or whether they were temples. The common design pervading all the larger alignments, showing that they were erected at the same epoch, forbids one accepting the view that they were simply commemorative of different persons, that they were a kind of archive, each stone recalling a fact, a person, or a date. The remarkable care observed in burying the dead proves that these people were strongly religious. The care taken to put in the proper place the odd stone, and its relation in the summer solstice to the rising sun, indicate that the alignments were erected for the worship, on stated occasions, of the sun. M. Gaillard told us that he believed the menhirs were erected by this early race as monuments to their ancestors. The English archeologist, James Miln, who lived for many years at Carnac, and who founded and built the interesting local museum which bears his name, tells us in his "*Fouilles Faites a Carnac*" that after taking into account the association in this region of menhirs, of alignments, of cromlechs, and of dolmens, he concludes that "these monuments are the débris and the remains of an immense necropolis," and perhaps this is the more natural and logical view to hold. At the same time, while this involves the worship of their ancestors, the sun may also have shared in their adorations.

Judging by the contents of the dolmens, some bronze bracelets and other articles having been found in them, these megalithic monuments were erected during a period of transition from the stone age to the age of bronze; and they are supposed to be contemporaneous with the pile dwellings of the stone age of Switzerland. Who were these stone axemen, these neolithic stone masons, who could with their polished celts quarry, and could

transport monoliths weighing more than some of the obelisks of Egypt, the great menhir of Lockmariaquer being nearly 68 feet long, and weighing 240 tons? Were they genuine Celts? Prof. Gabriel de Mortillet says no. "All these primitive monuments formerly bore the collective name of Celtic or Druidical monuments. It was supposed that they were peculiar to the Celts, and raised by their priests, the Druids. It is a great error. These monuments are found in abundance in regions which have never been occupied by the Celts, as Denmark, Spain, Portugal, Morocco, Algeria, etc. They are even very probably in greater part anterior to the great Celtic invasions; and if they attracted the attention of the Druids, it was only when they were already partly in ruins and lying on the surface of the soil" (*"La Préhistorique Antiquité de l'Homme,"* 1885).

Cartailhac, in his excellent work on Prehistoric France (1889), also says that we must abandon the views of the older archeologists, who believed that these were Druidical monuments, and should be attributed to the Gallic or Celtic race, or to any single race of emigrants from the east. Within twenty years, owing to the rapid course of discovery in France, so many dolmens having been opened, in which were found the skeletons of different races, the tendency among the most experienced French students is, with Mortillet, to deny any special ethnic value to these monuments. For example, De Quatrefages discovered the bones of two races in the same dolmen, and Hamy has demonstrated that the population of France was almost as much mixed during neolithic times as to-day. Cartailhac concludes that the problem of the megalithic monuments is exactly that of the advanced civilization of Europe, which even in prehistoric times became almost universal, and which is called neolithic. "Did it," he asks, "reach our country with new races or populations? Was it spread by contact of one people with another? We have no response to make to these questions. The truth is probably scattered throughout all systems, and that which is true for one country will be inexact in another."

All archeologists, however, agree that these monuments were erected by the neolithic race or group of races, who used pol-

ished stone axes, and that this complex of races originated in the east, perhaps between the Caspian and Black Seas, migrated into Europe, bringing with them the cereals, flax, and the domestic animals and burial practices, and that they had religious ideas. As compared with the paleolithic races of the Old World, or those who were simply hunters and fishermen, and were of a purer, more savage, and primitive race, the neolithic peoples were a most composite type. To narrow down the problem, the French archeologists acknowledge that the megalithic monuments of France were of the same age as the pile-dwellings at Robenhausen, near Zurich, which are of the polished stone age. It is well known that the lake-dwellers of Switzerland, as the centuries went on, received from the east and south bronze implements, and a knowledge of the art of making bronze tools. It is also known that the dolmens of Northwestern France were still used as places of burial as late as the beginning of the bronze age. Hence it seems natural to infer that the people who built these monuments were the ancestors of the Celt-speaking Welsh, Irish, and Bretons. The Robenhausen civilization was not probably much older than that of Egypt; and it seems reasonable to suppose that the menhirs and dolmens of France were of recent age, compared with the troglodytes of Spy and Neanderthal, the cave-dwellers of Cro-Magnon, of Dordogne, and of Kent's Hole or the men of the Mentone rock-shelters.

At all events—and this is the great charm of such inquiries—the problem is as yet unsolved. We may wander up and down these alignments, so weird and awe-inspiring, and speculate as to what manner of men were their builders. Few places in the world are enveloped in such an atmosphere of myth and doubt. The very people now inhabiting these stone-studded plains, perhaps their remote descendants, speak a semi-fossil language, go about among these monuments of the dead in a funereal garb of black, still cherish a few pagan, almost prehistoric, superstitions. They can readily talk with Celtic, Irish, and Welsh, but French is a foreign language to them; and, in short, they are a link between the present and the age of stone. Many English travelers visit this strangely interesting region. Why is it that so few Americans care to wander to the Morbihan?